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IZAMAL AND ITS CELESTIAL PLAN¹

By STANSBURY HAGAR

I. DESCRIPTION

THE modern town of Izamal, in the north-central part of Yucatan, is built on the site of Itzamal, an ancient theocratic center of the Maya dedicated to the deity Ytzamna. The earliest mention of the ruins is found in the work of Landa, who wrote in 1566, forty-five years after the Spanish conquest of the peninsula. He describes these ruins first, and more fully than any others, and seems to have regarded them as the most important in Yucatan. He says:

"As for the edifices of Ytzamal, there are eleven or twelve, but no one knows who built any of them.² . . . These edifices of Ytzamal were eleven or twelve in all, although this one (described below) was the largest; and they are very close to each other. There is no memory of their builders, who seem to have been the first (inhabitants of the country). They are situated eight leagues from the ocean in a very beautiful location and in a fertile and thickly populated region.³ . . . Here at Ytzamal amongst other buildings there is one of such height as to inspire awe. . . . There were twenty steps, of more than two large palms in height and a palm and a third in width; and the edifice itself has a height of over one hundred feet. These steps are of very large and excellently cut stones, although they are already much defaced and injured by time and storms. Around the building in a semi-circle extends a wall of perfect workmanship, and great solidity, about nine feet high, one projecting cornice of very beautiful stones throughout, above which the edifice rises until it reaches the terrace at the top of the first flight of stairs."⁴

¹ An elaboration of a paper read at the meeting of the American Association for the Advancement of Science, Baltimore, 1909.

² Diego de Landa, *Relacion de las cosas de Yucatan*, Brasseur de Bourbourg ed., pp. 32, 33.

³ *Ibid.*, pp. 328-331.

⁴ *Ibid.*, pp. 328, 329.

It does not seem possible now to identify this structure with any particular building, but it was probably a type of those upon the mounds of Izamal.

Concerning the history of Izamal, Landa says that its priests, called Chel, were believed to be descendants of a daughter of the chief of the twelve priests of Mayapan and a young noble, Achchel. They were in constant strife against the two noble houses of the Cocomes and Xius, with whom they divided the control of Yucatan.¹ Brasseur calls the place preeminently a sacerdotal city, which for this reason must have had great authority in Yucatan. Lizana, writing sixty years after Landa, found the remains of only five temples at Izamal, but he gives a detailed description of four of these which reveals the basic plan of this sacred city. He says:²

"There are in this town of Ytzamal five very lofty and sacred pyramids or mounds built entirely of hard stone, with foundations and retaining walls which serve to support the edifice above, but no edifice is seen today entire, though traces of what they were are observable in one situated towards the south. The ancient inhabitants had an idol, the most renowned that they possessed, called Ytzmat-ul, which signifies 'He who receives and possesses the virtue or the spirit (rozio, dew) or the nature of heaven.' This idol had no other name, or, at least, no one gave him any other, because they say that he was a king, a great lord of this land, who was obeyed as a son of the gods. When he was asked his name or who he was he spoke only these words: 'Ytzen caan, ytzen muyal,' which signifies 'I am the (spirit or the) dew of heaven and of the clouds.'

"This king having died, they erected altars in his honor; he was an oracle and we shall see farther on how and why another temple was erected to him. When this divine king lived, people consulted him as to events which were to happen in far distant regions, and he informed them about these and other future events. The dead were also carried to him and they say that he brought them back to life and that he also healed the sick, and so they held him in great veneration. . . .

"In heathen times these same Indians erected another altar and temple to this Ytzmat-ul, their king and false god. They placed in it

¹ *Ibid.*, pp. 56-59.

² Lizana, *Historia de Yucatan*, Museo Nacional, Mexico, 1893, cap. III; Brasseur ed., pp. 357-365.

the figure of a hand to recall the memory of him, for they say that it was on that spot that they brought to him those who were dead and those who were ill and he restored them to life and health by touching them with his hand. This temple was the one towards the west, and they named it Kab-ul, which signified 'the Working Hand.' There they offered liberal alms and they brought presents thither; people made pilgrimages to it from all directions, on which account they built four roads or highways towards the cardinal points, which extended to the extremities of the country as far as Tabasco, Guatemala and Chiapas. Remains of these roads can still be seen in many places. Such was the number of people who came to these oracles of Ytzmat-ul and Kab-ul,¹ on account of which they had made these roads.

"They had another sacred mound or hill towards the north, which is now the highest; it is called Kinich-Kakmo, because there was upon its summit a temple with an idol called by that name, which means in our language 'Sun with visage like rays of fire,' and it (the fire) descended at noon to burn the sacrifice, in the same manner as the ara with its many colored plumes descends in its flight.

"Much reverence was shown for this god or idol and they say that when there was great mortality or a pestilence or other public calamities, all went to him, men and women alike, carrying a great number of presents to offer to him, and then, in sight of all, a fire descended (as I have said) at noon and consumed the sacrifice. Then the priest announced to them what would happen concerning the subject about which they desired information, such as diseases, famine or death, and, after that, they became acquainted with the good or evil fortune to come, although sometimes the event was contrary to what had been announced to them.

"There was another pyramid, still called by the natives Papp-Hol-Chac. This is the one on which the monastery of our father Saint Francis has been built, and this name signifies in Spanish 'House of Heads and Lightnings,' for the priests of the gods dwelt in it who were respected and regarded as lords; they punished and rewarded and were served with the most complete obedience; it was there that they declared their oracles which were believed so completely that nothing incredible could issue from their mouths. On the other hand these priests were, and still are, called in the Maya language Ahkin, a word which comes from Kinyah, which signifies 'to cast lots or draw presages.' For, as the priests of former times drew presages from their sacrifices when they wished to ascertain or declare the things which were asked of them they were called Alakin. . . .

¹ The original reads Tiabul.

"There was another pyramid which was the house and dwelling of a great captain named Hunpictok and it is situated between the south and west. The name of this captain signifies in Spanish 'the captain who has an army of eight thousand lances' because the lance and arrow points with which they fought in time of war were kept there; his office was of the greatest importance and the army served to keep the vassals in submission and to compel them to maintain the king or deity and the priests, as well as to defend the subjects of this realm and to guard their temples. Such were the most famous oracles of Ytzmat-ul or Ytzamal, as it is now called."

In recent times Izamal has been visited by Stephens, Norman, Le Plongeon, Charnay, and Holmes, who give general descriptions of the ruins and more detailed accounts of the few sculptures.¹ Charnay counted twenty pyramids, more or less, showing that the eleven or twelve mentioned by Landa must have formed a special group probably differentiated from the others because they possessed in common a symbolism peculiar to them.

II. SIGNIFICANCE OF THE SYMBOLISM

Lizana's description of the ruins indicates an undefined central space from which four roads extended toward the cardinal points to the extremities of the country. In various directions from this central space were located five of the eleven or twelve edifices mentioned by Landa, resting upon the summit of pyramidal mounds typical of Mexico and Central America. All of them bore the name of the deity Itzamna, yet each had its special name and attributes. It seems difficult to explain this unless we regard Itzamna as a name of the Cosmic Spirit which is the ultimate divinity of ancient America, and the other names as special manifestations. Toward the north stood the highest mound, as all writers agree, and upon it rested the temple of Kinich Kakmo, Sun Eye, Ara of Fire, who was represented by a human figure in the act of sacrifice pointing a finger toward a ray from the mid-day sun,

¹ Stephens, *Incidents of Travel in Yucatan*; Norman, *Rambles in Yucatan*; Charnay, Ma Dernière Expédition au Yucatan in *Le Tour du Monde*, Paris, 1886, pp. 278-283; Le Plongeon, *Queen Moo*, p. 196; Holmes, *Ancient Cities of Mexico*, *Field Columbian Museum Pub.*, pp. 97-100; Mme Le Plongeon in *Proc. Amer. Antq. Soc.*, 1878, pp. 88-96.

as if to draw a spark wherewith to kindle the sacred fire.¹ In the Mexican figurative symbolism, eyes are very generally employed to express radiating light, especially that of stars. Stars shooting down from the night sky are thus designated. On a temple in the Borgiano codex the sun is symbolized by an eye surrounded by radiating eyes. This is the sun eye, Kinich.² As Kinich Ahau, Lord of the Sun Eye, Cogolludo calls this deity the greatest god of all, regarding Ytzamna as his son.³

Like the eye, the fiery ara was a solar symbol. Dr Seler defines it as a particular conception of the sun god. The ara is the macaw, a species of parrot with brilliant fiery plumage, apparently identical in symbolism with the red guacamaya, called by the Zapotec "picture or reflection of the sun." Concerning the fiery ara, Lizana adds:

"As for its rays (those of the sun), some poets call them hair or golden plumes, alluding, it seems, to the reference which the indigenes make to the solar rays when adoring the varicolored plumage of the ara, and when causing their offerings to be consumed (by fire). I indeed believe that they symbolize in this manner the burning of the woods and the drying up of vegetation, occasioned by the intense heat of the solar rays, since this was their only means of burning (the waste growth) in preparation for the next sowing: the only plough at their service."⁴

Brasseur further explains that the statement refers to the Maya custom of setting fire to the parched woods and underbrush and sowing their seed in the ashes after the first rain. This indicates the connection of the fiery ara with the burning heat of the sun at the time of the June solstice. In fact the uinal or twenty-day period beginning at the solstice was called Cumku, "noise of an explosion heard in the distance, such as is caused by the cracking of the (dry soil in the) swamps at the approach of the rainy season or by the reverberation of thunder in distant storms . . . "⁵ The Maya new-fire festival was held under Pop, the uinal following

¹ Bancroft, *Native Races*, III, p. 464.

² Seler in *Bull. 28, Bur. Amer. Ethnology*, pp. 311, 312.

³ *Historia de Yucatan*, p. 196.

⁴ *Ibid.*, cap. 10; Brasseur ed., p. 360, note 3.

⁵ Pio Perez in Landa, p. 382.

Cumku, and in the ritual of the supplementary days between these uinals an angel was thought to descend from the sky to receive the sacrifices—probably a reference to the fiery ara.¹ Moreover, the ara head, or the tortoise head which resembles it, is the particular symbol of the June solstice and of Kayab, the uinal preceding Cumku. To this period pertain the day signs Cauac and Ahau, Music and Lord. The former name appears also in the hieroglyph of the deity Kinich Ahau. It signifies descending fire, and is so represented in the Codex Cortesianus.² The latter name doubtless refers to the Lord of the Sun Eye. The corresponding Zapotec day sign is Lao or Loo, Eye; and in Guatemala, Ayotl, Tortoise, symbol of the June solstice, precedes it. One species of Mexican tortoise actually has upon its shell a yellow radiate figure suggestive of the sun.³ On page 40 of the Dresden codex the ara or tortoise deity carries in his hands an upright and inverted torch to represent the northern and southern course of the sun touching at the June solstice.⁴ And in the spear-throwers group (page 46) Cancer is represented by a fiery head from which flames are issuing. In the Mexican codices there are a number of drawings depicting the descent of the sun bird and others on the altar in the solstitial temple.

The deity of the eye of light is represented on a sculptured slab at Santa Lucia Cozumalhualpa with flames issuing from his arms, and he is plunging head-first from the sky.⁵ Directly below him is a priest gazing upward at the descending figure while he holds in his right hand a basin-like object, upon which appears the head of an ara. His head-dress consists of an eye with three pointed rays, behind which are feathers. Beneath the right elbow of the celestial figure this eye seems to be repeated in miniature, and from it two objects, perhaps flames, descend upon a square symbol similar to the Mexican *tlalli*, "earth." This suggests the flame-like figure which projects from the head of the Tlaloc, who repre-

¹ See Landa, p. 216.

² Seler, op. cit., p. 53.

³ Seler, ibid., p. 382.

⁴ See Förstemann, ibid., p. 423.

⁵ Seler, op. cit., pp. 311, 312.

sents the Etzalqualiztli festival under Cancer, in the Humboldt picture-writings. The left hand of this Cozumalhualpa figure terminates in a tiger paw which seems to identify him as the representative of the Tiger-paw deity, and an inverted tiger-skin appears behind him. Facing the priest is a smaller human figure who holds a smaller basin and points to the zenith with one finger, thus corresponding to the description of the Kinich Kakmo idol at Izamal. Beside him is a face like that of god K of the Mayan codices; over it are two crossed sticks used in determining the position of constellations, as Mrs Nuttall has shown. Over the priest are two circular glyphs containing tigers' heads.

The basins give us the key to the meaning. The tableau represents a priest marking the June solstice, the time of the sun eye and fiery ara, by means of the reflection of some star or constellation in the mirror basin which he holds. Probably the basin contained water.

"In the native Maya chronicles the reflection of a star upon the trembling and moving surface of the water is given as an image of the Creator and Former, the Heart of Heaven, and it was believed that the divine essence of life was thus conveyed to earth by light shining on and into the waters."¹

The real descent of the fiery ara was probably marked by the reflection of a constellation within a bowl upon the temple altar at the solstitial noon of the year. The ocelotl symbols represent Leo, as the author has shown in a previous paper.² The Mexicans began their festivals at the end of the twenty-days period to which they pertained. If the Maya did the same, this would place the June solstice ritual between their constellation of the Sun Eye and Fiery Ara and that of the Ocelotl. According to Seler's description of this tablet, the head of the deity is set, as it were, like an eye, under a large eyebrow which is curled up at the ends. The dancer below wears an eye as a hair ornament, and there is another eye at the top of the staff beside him. The sun-eye is therefore elaborately symbolized.³ It seems probable from these references that the

¹ Nuttall, *Fundamental Principles of New and Old World Civilization*, p. 225.

² Hagar, *Elements of the Maya and Mexican Zodiacs*, in *Proceedings Internat. Cong. Americanists*, Vienna, 1908.

³ Seler, *op. cit.*, p. 312.

descent of the fiery ara is a symbol of the annual descent of the sun from the highest point of its journey in the northern hemisphere at the June solstice. The northern position of this pyramid may then represent the northernmost point in the annual journey of the sun, the noon descent, the annual noon of this journey, and the superior altitude of the pyramid, the greatest solar altitude which was attained on that date. The Mexican ritual contains a parallel to this symbolism in the human victim who at the time of the solstice was conducted up the temple steps to represent the ascending course of the sun and was then hurled down to represent the solar descent. But, as we have seen, the symbolism is not exclusively solar. Burgoa states that in an ancient Zapotec town significantly called in Mexican *Teotitlan*, "near the sun god," there was a very ancient sanctuary where an idol uttered oracles in a terrific rumbling voice which sounded as if it came from the depths of the earth; and this idol was said to have come from heaven in the form of a bird *in a luminous constellation*. Seler identifies this bird with the fiery ara.¹ If our explanation be correct, this constellation must evidently be that through which the sun was passing at the time of the northern solstice.

In the Maya codices Cancer is governed by the god K, the Mexican lord of fire and water to whom the fire-sticks pertain, the Kiche Toh who first produced fire. The ara is frequently figured beside the water goddess. On page 30 of the Codex Fejérváry-Mayer it is represented flying down upon an altar in a temple before and on which appears the sign of an offering. Cipactli, a day sign pertaining to Cancer, is the only symbol placed before the temple.

The Indians and mestizos of Izamal have a tradition that under the Kinich Kakmo mound there is a large pool of crystalline water, and standing in the middle of it a beautiful image of a woman, so resplendent and shining that it illuminates the whole place.² This may be a genuine ancient tradition, for an interior chamber has actually been reported within this mound by Stephens,

¹ Op. cit., p. 296. Italicized by the present author.

² Mme Alice Le Plongeon in *Proc. Amer. Antiq. Soc.*, 1878, p. 96.

and the image may have been that of the Water Goddess, the Mexican Chalchiuhltlicue or Emerald Woman, who represents the sign Cancer in the spear-throwers group of the Borgiano and other codices.¹ Somewhat less than half-way to the top of this mound was a platform from which the people were permitted to watch the ceremonies performed by the priests on the summit.

To the west of Izamal was the mound and temple erected in honor of the dead "king" Ytzamna, by which is evidently intended that deity in the aspect of lord of the dead. He was an oracle who foretold future events and brought the dead to life by touching them with his hand. Because of this feat the temple contained an image called Kab-ul, the working hand. The death god A of the codices, with whom this aspect of Ytzamna may be identified, is figured as a skeleton spine and skull. He is connected with the uinal Xul or End (October-November) and governs the day sign Cimi or Dead, which is opposed to the Moan symbol of the Pleiades.² He is also associated with the festival Chich Kaban, the Calling Down of the Great Hand, which was celebrated during the uinal Xul. It commemorated the ascent of the deity Cuculcan to heaven amongst the gods, "on account of which the Indians regarded him as a god and built temples to him," also the descent of the same deity from heaven at this time to accept the offerings presented to him by the faithful.³ The uinal and the day sign mentioned pertain to the sign Scorpio, and the ritual was held while the sun was passing through this sign, which in Mexico, Peru, and in many parts of the world was regarded as the death sign, opposed to the beneficent Pleiades in symbolism as in celestial position. The uinal End would then refer as a symbol to death as the end of human life and to the end of Cuculcan's career on earth. The Kab-ul temple likewise becomes a Scorpio symbol.

Lizana places the temple of Hunpictok, Eight Thousand

¹ Cf. Elements of the Maya and Mexican Zodiacs, p. 287.

² Cf. Schellhas, Deities of the Maya Manuscripts, *Peabody Museum Papers*, vol. iv, no. 1, p. 10; Förstemann, Commentary on the Maya Manuscript of Dresden, *ibid.*, no. 2, p. 250.

³ Landa, pp. 298-303; Brinton, *Native Calendar*, p. 37.

Lances, between the south and west. As a matter of fact it lies south of Papp Hol Chac and a little east of south from the central square. It is not unlikely that because of its similar symbolism, described farther on, Lizana confused this mound with one situated to the west of the plaza and to the southwest of Kinich Kakmo. He states that it was the home of the captain who had an army of eight thousand lances. Arrows and other warlike implements were kept here, and here the army had its headquarters. This was therefore the temple of the war gods who ruled the opposite zodiacal signs Gemini and Sagittarius. Similar symbolic attributes are usually assigned to opposite signs amongst the Maya and Nahuatl. But this mound probably pertained to the sign Sagittarius for reasons stated beyond.

The first mound mentioned by Lizana was dedicated to Ytzmat-ul, the Spirit or Essence of Heaven, and of the Clouds. Cogolludo calls him son of the supreme incorporeal cosmic deity Hunab Ku, the One Saint from whom all things emanate.¹ He bore the name Ytzmat-ul because, as a master of spiritual laws, he was said to have received from his father and to possess the virtue, spirit, and nature of heaven. This name is probably a corruption of Ytzam-na-t-ul, House of the Working Spirit, and refers to a temple dedicated to the all-pervading Spirit who occupies the supreme position in the pantheon of American Indians generally. The fact that Lizana places his temple toward the south in contrast with Kinich Kakmo at the north would indicate an association with the southern sign Capricornus opposed to Cancer, if indeed this is an astronomical symbol like those preceding. On page 12 of the Codex Cospiano (Loubat edition) the sun in Cancer is represented by the sun god before the house of day, in which stands an ara. With these symbols are contrasted a black deity before the house of night, in which stands an owl, symbol of darkness and death. This deity seems to be the black god called L and M by Schellhas, sun of winter, the night of the year. He represents Capricornus on sheet 19 of the Codex Cortesianus. The name *muyal*, "clouds," in his title may have some connection with *muluc*, day sign adjoining and

¹ Cogolludo, lib. iv, cap. 6.

perhaps pertaining to Capricornus, in whose glyph appears the cloud symbol.

Although Charnay, Mme Le Plongeon, and Cash agree in placing this mound to the east of the plaza, a careful reading of Lizana establishes another conclusion. In the first paragraph of his description quoted in this article (p. 17) he mentions five pyramids, one toward the south, and describes the idol Ytzmat-ul. He then proceeds to locate the other four pyramids in directions other than south, and to connect them with the other names, mentioning Ytzmat-ul again only in the third paragraph as the general deity of whom Kabul was a symbol. Therefore it seems probable that Lizana intended to identify Itzmat-ul with a mound toward the south.

The remaining mound temple of Lizana is called Papp Hol Chac, House of Heads and Lightnings, where oracles were declared. In this temple dwelt the priests who punished and rewarded and who also foretold the future by throwing or drawing lots. One method used for this purpose was the counting of grains of maize, a favorable or unfavorable result depending upon whether the final sum were odd or even.

Rites in honor of the first priest and a ceremonial announcement of prognostics are described by Landa in the second uinal, Uo, but the sequence of symbolism would lead us to assign these ceremonies to the following uinal, Zip, which pertains to the sign Libra. In the Borgiano and Vaticanus codices this sign is represented by the figure of a *tlahcouani*, or oracular priest, in the act of announcing the prognostics. He is an embodiment of the Mexican constellation Teoyaotlatohua, which governed rites in honor of dead kings and lords in the twenty-day period Hueymiccaihuitl under Libra. The "house of the priests" would therefore seem to be associated with the sign Libra.

West of the plaza there is another mound which has been identified with Kab-ul by Lizana and all modern writers. This is the only mound upon which symbols have been found, but these symbols do not agree at all with the attributes of Kab-ul. Fortunately sculptures on three sides of this mound were sketched or photo-

graphed before they were completely destroyed by the ignorant population of present times. On the south and east walls were two gigantic human faces, one drawn by Stephens, the other photographed by Charnay and others. Stephens describes the expression of one as stern and severe.¹ Now Landa tells us that the Maya always had two generals in command of their armies, and one of them presided over the ritual in the uinal Pax under our sign Gemini. At this time they celebrated the rites of the warriors. It seems probable that the two human faces are those of the two Maya generals, symbols of Gemini. But on each side of the face upon the east wall there are numerous S-shaped double spirals, the Mexican *xonequilli*, symbol of the sign Sagittarius, opposite Gemini. On the west wall there is a crouching disemboweled man having a tiger mask before his face "beautifully molded and reminding us of the orders of knighthood in which the tiger had the preeminence."² His figure was photographed by Le Plongeon and sketched by Holmes. Accidentally or otherwise it assumes the form of the *xonequilli*. It seems to be the same figure as that of the warrior of Sagittarius who is struck by the spear on page 50 of the Dresden codex, and it no doubt represents the sacrificed captive taken in war who was a prominent feature in the warriors' ritual of Gemini and Sagittarius. During the supplementary days the Maya celebrated four festivals to the four signs governing the seasons. In this ritual Gemini was represented by the *bacab* or deity called Hozan-ek, the Disemboweled Asterism, with whom this Izamal figure may reasonably be identified.

The Sagittarius uinal Mol or Paw may have been derived from mool or jaguar, likewise the day sign Muluc. Another day sign Manik signifies the seizing hand grasping a captive or prey. In the Mexican ritual we find Gemini similarly represented by the two war gods Uitzilopochtli and Tezcatlipoca. The latter is figured as a jaguar, and is also associated with Sagittarius under the name Camaxtli. Hence we may regard the symbols of this mound as primarily representing Gemini, but they are also symbols of Sagit-

¹ Stephens, *Yucatan*, II, pp. 434-508.

² Charnay, *Ruined Cities*, p. 310.

tarius. This is the same association of the symbols of opposite signs which we found connected with the Sagittarius mound of Hunpictok.

III. PLAN

The question now arises as to the identification of these traditional mounds with the present remains at Izamal. Modern writers are in accord with Lizana's location of these mounds excepting that they place Itzmatul to the east instead of to the south and also excepting that, as tradition testifies, Hunpictok was situated to the southeast instead of to the southwest. Charnay indeed made several mistakes in naming the mounds in his *Ruined Cities of the New World*, but corrected them in a later paper.¹

The accompanying plan of the ruins (fig. 7) was made for the writer in 1910 by Mr Henry A. Cash, an engineer of repute, through the kindness of Mr Edward H. Thompson, formerly United States Consul at Merida. It shows the location of six mounds, and in the accompanying report Mr Cash mentions a seventh to the southwest of the region covered by the plan. But he was unable to obtain any information with respect to the names or attributes of these two additional mounds, or to verify or add anything to the traditions reported by Lizana. In fact he states that the present inhabitants of Izamal have no interest in the antiquities of their town, and traditional knowledge concerning the mounds has probably perished completely.

There is general agreement as to the position of Kinich Kakmo, the great mound to the north of the present plaza. The position of Papp Hol Chac is also definitely fixed because Lizana locates it on the site of the Convent of St Francis, and this is known to have occupied part of the space upon which rests the present parish church. Tradition also determines the position of Hunpictok. In seeking, then, to understand the plan of Izamal, we have as a starting point three mounds definitely identified and the position of two others shown by Mr Cash. The symbolism of all five mounds described by Lizana is probably associated with zodiacal signs; therefore it seems reasonable to expect that the general plan

¹ See reference, p. 27.

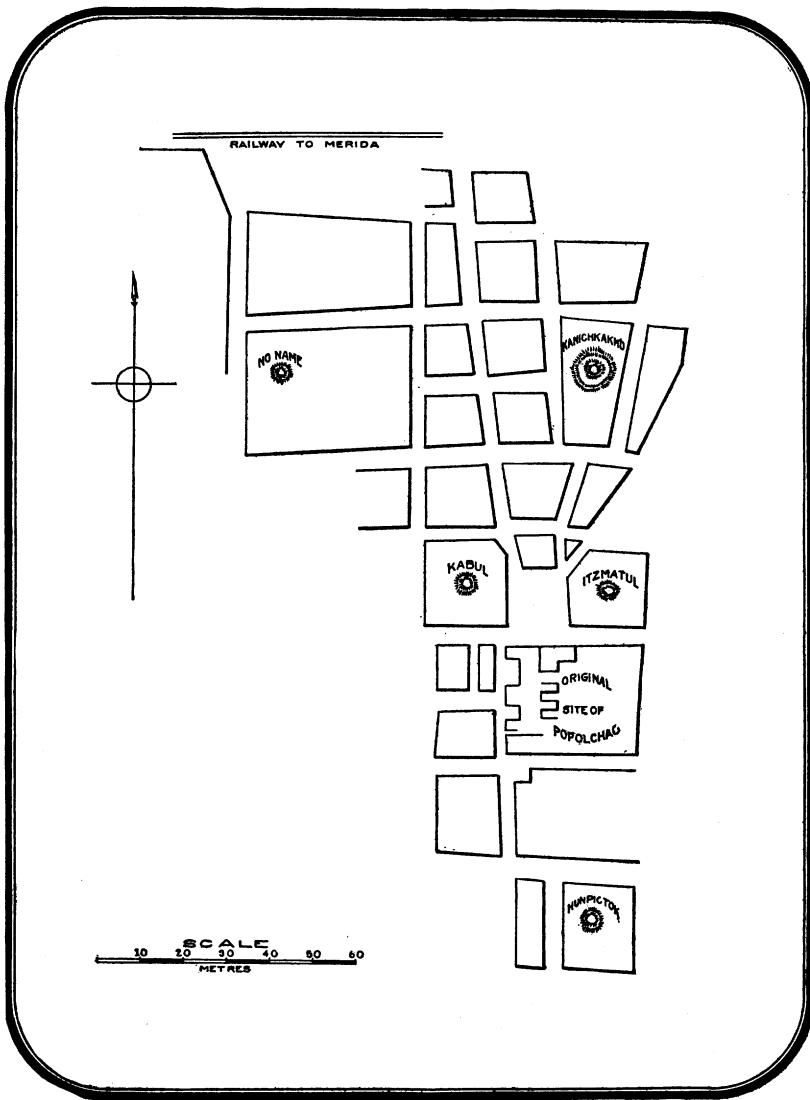


FIG. 7.—Plan of part of the city of Izamal showing the position of the various prehistoric mounds. (Surveyed for Stansbury Hagar by Henry A. Cash, 1910.)

will reveal a like association. We have seen reasons for thinking Kinich Kakmo was situated toward the north, because it represents the northernmost zodiacal sign. We find Papp Hol Chac situated

toward the east, the proper relative position of Libra, the sign with which its symbols are associated, and Hunpictok representing Sagittarius in its proper relative position toward the southeast. Since these three mounds, then, are properly situated to represent their respective signs in the zodiacal circle, let us see whether the same purpose may govern the positions of the other mounds. If so, a mound dedicated to the sign Leo should adjoin Kinich Kakmo, the Cancer mound, on the southeast. This position is occupied by a mound called Itzmatul by Charnay, Mme Le Plongeon, and Cash, but we shall follow Lizana in locating that mound toward the south. In that case the real name of this mound has been forgotten. Passing on, the next space toward the south should be occupied by a mound representing Virgo, and here we encounter an interesting fact which may or may not be significant. The mound, if there was one, that occupied this position, adjoined the site of the present parish church, which contains the image of the miraculous Virgin of Izamal. Now, in the Maya symbolism this sign pertained to woman, especially to Ixchel the Priestess, deity of the female sex. Her rites were celebrated in the uinal or twenty-day period Zip corresponding with our September, when the sun is in the sign Virgo.¹ It is the well-known policy of the Roman Catholic Church in missionary fields to locate its shrines upon or near spots formerly occupied by native shrines and to dedicate its altars to some saint whose attributes resemble as closely as possible those of the native deity supplanted. Therefore the presence of the Virgin of Izamal on this spot may indicate the former existence near it of a shrine to Ixchel or some other form of female deity. While describing the temples of Izamal, Cogolludo refers to houses of virgins, the occupants of which were highly respected during life and were worshiped as goddesses after death.² He may have had in mind a House of Virgins at Izamal.

Next comes the Papp Hol Chac, representing Libra in its proper position in the sequence. This should be followed by Kabul representing Scorpio, but no mound remains on this spot, and, as

¹ See Landa, p. 288.

² *Historia de Yucatan*, p. 198.

we have seen, Lizana and all modern writers locate Kabul toward the west, identifying it with the mound of the Gemini and Sagittarius symbols and thus opposing both our theory and the significance of the symbolism. Hunpictok next represents Sagittarius in its proper position.

Capricornus should be represented by the mound dedicated to Itzmat-ul. This may be identified with a pyramid mentioned by Cash as situated to the southwest of the mounds mentioned above and beyond the limits included in his plan.

Having now attained the southernmost sign, in order to complete our scheme we must suppose another series of mounds representing the signs from Aquarius to Gemini and extending northward to the west of the series just studied. The pyramid of the sculptures occupies the proper position and presents the proper symbolism to represent Gemini in such a series, but no trace remains of any of the mounds or symbols which should represent Aquarius, Pisces, Aries, and Taurus. The scheme as completed now indicates a sequential arrangement of the twelve zodiacal signs in two columns of five signs each, to which must be added Cancer at the north and Capricornus at the south. The four roads must also be included in this scheme, and are readily explained as symbolizing the terrestrial division into four regions corresponding with the celestial four seasons divided by the solstices and equinoxes. This fourfold division and the cross as its symbol are in common use throughout native America.

In the following summary of this scheme the actual names and remains of Izamal are given in capitals, supposed remains and names in small letters.

Theoretical Plan of Izamal

N.

CANCER (KINICH KAKMO)

| | | | |
|----|----------|-------------------------|----|
| | GEMINI | LEO | |
| | Taurus | Virgo (Ixchel?) | |
| W. | Aries | LIBRA (PAPP HOL CHAC) | E. |
| | Pisces | Scorpio (KABUL) | |
| | Aquarius | SAGITTARIUS (HUNPICTOK) | |
| | | CAPRICORNUS (ITZMAT-UL) | |
| | | S. | |

Comparative Positions of Mounds from Plaza

| | LIZANA | CASH AND MODERN WRITERS | THEORETICAL PLAN |
|---------------|-----------|----------------------------|---------------------|
| ITZMATUL | South | East | South |
| KABUL | West | West | Southeast |
| KINICH KAKMO | North | North | North |
| PAPP HOL CHAC | Southeast | Southeast | Southeast |
| HUNPICTOK | Southwest | Southeast | Southeast |

The writer does not claim for the existence of the above plan anything more than a reasonable probability based on its consistent and systematic explanation of the few known symbols. It is to be hoped that some day scientific excavations may reveal other symbols which will determine its truth or error with greater certainty. But if this plan existed, it presents another example of a theogonic center, typical of native American culture, in which the sacred city was sacred because built on a sacred plan, and the plan was sacred because it was believed to reflect on earth the observed design of the sacred and perfect celestial world. This was a design peculiarly appropriate to a city of priests who watched the stars. Other examples of this celestial plan are found at Cuzco in Peru and at Teotihuacan in Mexico, and it is not improbable that we should find it in general use if our studies were not limited to the comparatively few places where anything is known of the local symbolism. The primitive beginnings of the celestial plan may be recognized in the location of the altars of the Skidi Pawnee with respect to the comparative positions of the constellations to which they are dedicated.¹

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¹ See Dorsey, Traditions of the Skidi Pawnee, *Memoirs Amer. Folk-Lore Society*, vol. VIII, 1904.